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PLACE OF MOVING PICTURES IN VISUAL EDUCATION

By

FREDERICK DEAN McCLUSKY

Instructor, College of Education



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Place of Moving Pictures in Visual Education

Visual education not new. The recent emphasis upon visual education has created the impression in the minds of many persons that the movement is very new. This is not true. Slides and stereographs have been used in schools for over two decades and such visual aids as charts, models, diagrams, pictures and museum exhibits for a much longer period. Dudley Grant Hays of Chicago, A. W. Abrams of Albany, New York, C. R. Toothaker of Philadelphia, W. M. Gregory of Cleveland and others have been at the head of city or state distribution centers of visual education for many years.

The rapid development of the art of photography and the perfection of the moving picture have opened up new opportunities and greatly added to the enthusiasm for visual education. The moving picture was used with success in training mechanics in army cantonments during the World War. The wide-spread interest at the present time, in "education-through-the-eye" is largely due to the fact that the moving picture has been introduced as a means of education in the schoolroom, and has, moreover, during the past five years become so prominent in the field of visual education that the average person today thinks of the "movie" and "visual education" synonymously. This state of mind is unfortunate because all of the evils and limitations of the moving picture as a means of instruction are associated with all types of visual education.

Evidence of recent emphasis upon the moving picture as a means of visual education. Immediately following the World War a number of commercial enterprises were launched in Chicago and in New York for the purpose of producing and distributing non-theatrical moving pictures for educational purposes. Men who thought they saw in the army use of films for instructional purposes an inkling of the future possibilities of educational films plunged ahead and invested their money as evidence of their faith. Some of these men at least appear to have had no very clear understanding of the educative processes and the function of visual materials. One might say that they were on their way not knowing their destination. A few are still on their way, but some have reached the end of their journey abruptly.

Additional evidence of the emphasis given to the moving picture as a means of education is found in the magazines established in the field of visual education. A number of these publications indicate by their titles that they were established to promote the use of moving pictures for educational purposes, and all have given prominence to this phase of visual education. The first issue of the Reel and Slide, "a monthly magazine to make the screen a greater power in education and business," appeared early in 1918. This title was changed in 1919 to the Moving Picture Age. In January 1920, the first number of Visual Education appeared. This is the official publication of the Society for Visual Education, Incorporated. By April, 1921, there were four publications serving the field of instruction, namely, Moving Picture Age, Educational Film Magazine, Visual Education and The Screen. Early in the year 1922 the fifth magazine was launched bearing the title of the Educational Screen. This marked the high point in expansion and was quickly followed by the discontinuance of certain magazines and the combination of others. Both The Screen and the Educational Film Magazine ceased publication in the spring of 1922. In December, the Moving Picture Age and The Educational Screen merged, the new magazine bearing the title of the latter. At the beginning of the present year, 1923, there are two magazines, Visual Education and The Educational Screen, whereas a year ago there were five such publications.

The commercial interest in visual education. As indicated above, the men who produce educational films are deeply interested in visual education. These commercial men are interested also in making a return on their investment and we find considerable evidence that commercial interests, without intelligent consideration of the fundamental educational questions involved, have carried on a campaign of propaganda in order to influence educational policies and practise.

National organizations devoted to visual instruction. In the field of visual education there are two organizations, the National Academy of Visual Instruction and the Visual Instruction Association of America. The former organization is four years old. Its membership is limited to teachers and other educators and it is functioning on a national basis. It is now petitioning to become a Department of the National Educational Association. The Visual Instruction Association of America is literally the offspring of the Visual Instruc-

tion Association of New York City, and as yet is more or less a local organization. Its membership includes both educators and commercial men on the basis of equal privileges. The question naturally arises why there should be a second national organization in a field so new as that of visual education. An editorial in the final issue of the *Moving Picture Age* comments upon the situation as follows:

Feeling among experienced visual educators who have no bias in the matter is that the Visual Instruction Association of America is a fifth wheel. At the time of its formation, at Chicago during the meeting of the N. E. A. Department of Superintendence (1922), Dudley Grant Hays and the writer protested the step on the grounds of duplicated effort. The answer given was that the new group would specialize in work that the Academy had neglected—visual instruction in the elementary branches of education. Ostensibly this answer was sufficient, for the Academy could have done more with public-school work than it had up until that time. As a matter of fact this reason was not enough to justify a new organization. Another argument presented was that the commercial interests had no representation in the Academy, and would be given a better opportunity in the new group. The upshot is that the Visual Instruction Association of America is composed of both educators and commercial men, on a basis of equal membership privileges for all. Obviously such an off-balance grouping will never be accorded recognition or authenticity in educational circles.¹

Propaganda for visual education. The virtues which have been claimed for the moving picture have been brought to the attention of the public through newspapers as well as through publications explicitly devoted to this field. Some of the statements appearing are based upon the opinions of persons prominent in some field other than education and also upon investigations regarded probably as scientific by an indiscriminating public. The following statement published in the *Chicago Tribune* for October 3, 1920 is typical of a number of newspaper accounts:

Test shows "movies" surpass textbooks.

Members of the faculty of the University of Chicago interested in the teaching of children by "movies" instead of textbooks yesterday told of a test made in Detroit's public schools.

The Detroit children, under the examination of Professor J. H. Wilson of Columbia University, were given ninety minutes of film instruction. On examination, the average mark was 88. Using the same subject and instructing the children from textbooks for eighty² minutes, the average examination mark was 78, thus

¹Editorial, *Moving Picture Age*, 5:5, December, 1922.

²Other accounts of the same experiment show this figure to be "three hundred and sixty" instead of eighty.

demonstrating, according to Professor Wilson, that the first class of students learned 10 percent more in one-third of the time needed for book instructing.

The Society for Visual Instruction, with a branch at the Chicago University, will conduct other tests in the near future.

It is only natural for a newspaper to emphasize the story value of the articles which it prints, and for this reason one would not be greatly surprised to find that such an account involved some exaggeration of the facts. However, Visual Education, the official publication of the Society for Visual Education, Incorporated, garnished the editorial in its first number by the following epigram by Turgenev, "This picture tells me in an instant what would be spread over ten printed pages." In a later number of the same magazine we find the account of an experiment conducted by a member of the Society in the public schools of Evanston which resembles in spirit the newspaper account quoted above. The experiment involved the showing of a film picturing the life history of the Monarch Butterfly. Following the film there was a brief general discussion and then the pupils were asked to write "frankly and freely their opinion of the film and the motion picture way of teaching nature study." Early in September the pupils had studied the Black Swallowtail Butterfly and its larva, using the textbook, mounted butterflies, and actual specimens of larva and chrysalis. The following are two of the conclusions which were drawn from this so-called experiment:

The majority testified that they had a better understanding of the Monarch, after this fifteen-minute showing of the film, than of the Black Swallowtail after two weeks of specimen and textbook study

And since we base our judgments even more upon our own experience than upon what we learn through books of the experience of others does it not follow that any educational method which requires the child to make his own observations, comparisons and deductions direct from the object studied, must inevitably accomplish far more for his mental development than a method which makes it necessary for him to gather from a textbook, ready-made, not only the materials on which his judgments must be based, but the very judgments themselves?¹

In the issue of Visual Education for May 1921 there appears an article in which the author tries to answer introspectively the question, "What is the psychological effect of reading a book after having seen the film version?" His answer is typified by the following quotations:

¹Belfield, L. and Bausch, E. H. "An experiment in nature-study-teaching by moving pictures," Visual Education, 2:16, January, 1921.

The titles when accompanied by the appropriate facial expression and screen action, revealed the real personality as much as several pages of reading matter.

Here the twitch of a mouth, the elevation of an eyebrow, the tension of a muscle tell more than a page of print. . . .

But of scarcely less value than these expression registers were the scenic and artistic effects impossible to the stage: in thirty seconds an impression was produced rivaling that of many paragraphs of the book.¹

In the Chicago Daily News for October, 1921, an article was headed by the captions, "Teach it by movies educators now cry." "This suggestion by H. G. Wells is finally meeting approval." In the Moving Picture Age we find an article entitled, "Preparation for college via motion pictures."²

In McClure's magazine for November, 1922, there appears a signed statement by Thomas A. Edison in which the following sentence occurs: "I believe that the motion picture is destined to revolutionize our educational system, and that in a few years it will supplant largely, if not entirely, the use of textbooks in our schools."

Caution urged by certain educators. While this propaganda has been appearing in newspapers and magazines devoted to visual education, a few educators have urged caution in passing judgment upon visual aids in education, particularly the motion picture, until reliable data concerning the educative value of these materials has been secured. In an article bearing the title "Research versus propaganda in visual education."³ Professor Freeman of the University of Chicago has called our attention to the fact that an educational movement usually passes through three stages: (1) the stage characterized by indiscriminating propaganda, (2) reaction and decline, (3) "the return of the pendulum toward the state of equilibrium." It is very clear that visual education has been and is still in the throes of the first of these stages, and it is highly desirable that we avoid or minimize the period of reaction and decline. Another educator has attempted to furnish an antidote to the indiscriminating propaganda by calling attention to some of the fallacies involved. In an editorial in the Elementary School Journal for March, 1921,

¹Hollis, A. P. "The screen and the book," Visual Education, 2:22-23, May, 1921.

²Koch, F. J. "Preparation for college via motion pictures," Moving Picture Age, 4:13, 20-22, August, 1921.

³Freeman, F. N. "Research versus propaganda in visual education," The Journal of Educational Psychology, 13:257-258, May, 1922.

C. H. Judd makes the following comment upon the experiment described on page 6.

The country has been flooded of late with propaganda material for visual education. Much of this material has been of the cheapest and most sensational type. Some of it has confined itself to the statement of the true merits of the visual method of instruction and will do more for the promotion of visual education of the right kind than will the cheap variety

The most egregious fallacy of the visual educators is that which they make when they try to vend their wares as complete substitutes for textbooks. An example of this sort of thing was perpetrated in a circular which came to the editor some days ago. With various personal data deleted, the circular sets forth its claims in the following terms: "Whether the screen or the textbook is more desirable and effective in nature-study teaching has just been put to the children in two public schools. One hundred and seventy out of the one hundred and eighty voted in favor of the screen as a choice of methods."

As an educational experiment by a science teacher this seems to be, to say the least, a bit biased. The Monarch butterfly seems to have had a background of the Black Swallowtail, but no credit is allowed the humble black moth for all the preparation which he supplied for his more brilliant successor.

After all, are the visual educators of the Simon-pure type going to gain their point by putting out this sort of stuff? Visual education is too good a possibility to fall into this kind of quackery. The textbook is too good an instrument of scientific teaching to be elbowed around in this way.

Impartial experimentation necessary. One means of avoiding the wasteful period of decline and disuse which has usually followed the period of indiscriminating propaganda is by hastening impartial and scientific experimentation for the purpose of determining the relative merits of visual aids of instruction. The so-called experiments already referred to are worthless because of the unscientific manner in which they were conducted. Furthermore, the investigator was not a disinterested party. In order for research in visual education to be effective it must be carried on in such a way that there will be no suspicion of the results having been influenced by commercial interests. This need for unbiased research exists in other fields but it is particularly accentuated in visual education because of the very direct interest which producers of visual materials have in the results.

Scientific experimentation applied. A small amount of research has already been carried on. Up to January, 1922, three notable investigations had been completed and the fourth was well under way. The first of these experiments was conducted by J. V. Lacy and reported in Teachers College Record for November, 1919, pages 462-65. Mr. Lacy compared three methods of instruction:

(1) the motion picture film, (2) reading the printed page, (3) oral instruction. He did not carry his investigation far enough to justify a final conclusion but his results indicated that oral instruction was slightly better than the reading method which in turn was slightly better than the motion picture method. The second experiment was conducted by J. J. Weber who compared the effectiveness of four methods of instruction: (1) the printed page (2) the teacher (3) the silent film and (4) film accompanied by remarks. Mr. Weber's investigation was more elaborate than that carried out by Lacy and involved nearly twelve hundred seventh-grade pupils in New York on the lower east side. He summarized his conclusions in the following words: "While we can not say yet what is the exact influence of moving pictures we have strong evidence that it is greater than either the printed page or the teacher upon the behavior of our boys and girls."¹

The third investigation was conducted by Dr. Ray Davis of New York University and was completed before Weber's thesis appeared. Dr. Davis made a study of the psychology of perception of motion pictures and for that reason his results do not have a direct bearing upon the effectiveness of the different methods of instruction.

During the spring of 1921 the writer began some experiments in visual instruction. By March, 1922, fourteen experiments in the schools of Evanston, the elementary school of the University of Chicago, and the public schools of Urbana, Illinois, were completed. The information obtained shows that in no instance do we find evidence which would warrant the enthusiastic claims for the superiority of the motion picture over other methods of presentation, and that a good deal of careful experimentation will have to be completed before we are able to tell just what the effectiveness of this new device in teaching will be. Certain of these experiments were used as a basis for a request in January, 1922, for an appropriation from the Commonwealth Fund, New York City, for the continuation of research of the same sort. This request for an appropriation was granted and the \$10,000 was turned over to Professor F. N. Freeman who, with the assistance of the writer, carried on further experiments in the public schools of Cleveland, Detroit, Oak Park, Chicago, and Evanston.

¹Weber, J. J. "Influence of moving pictures upon choice and conduct," *Moving Picture Age*, 5:14-15, July, 1922.

Influence of scientific experimentation upon commercial interests. There is evidence that these scientific investigations are already influencing the attitude of those who are commercially interested in visual education. Shortly after the first three investigations mentioned above were published the following statement appeared in an editorial in *Visual Education*, written by Professor W. C. Bagley:

On the other hand, it is true that many extravagant claims have been made for visual instruction which have not been substantiated by careful experimentation, and many of which probably could never be substantiated. The policy of the Society for Visual Education has been decidedly against such claims, and especially against the quite unwarranted supposition that pictures and projectors are to displace—or, indeed, do anything more than supplement—textbooks and teachers. One of the first steps taken by the Society was the appointment of a Committee on Research and Experiment under the chairmanship of Dean W. F. Russell of the University of Iowa.¹

It is gratifying to find from this and other evidence that those producing non-theatrical motion pictures and slides and stereographs now realize that the only way to put visual education on a sound basis is to approach the questions involved in an unbiased and scientific manner. Most of the commercial concerns may now be said to recognize the value of scientific experimental work in visual education and it is hoped that such research can be carried forward so that one movement at least in education will be saved the wasted energy of rapid decline which usually follows blind enthusiasm.

Difficulty in securing films for school use. There is one additional matter which deserves comment. The distributors in charge of films which could be circulated for schoolroom use have taken the stand that only those films which have no story running through them and which are to be shown only in connection with an actual lesson will be rented to school men for school purposes. This action has been in evidence in Kansas City, Cincinnati, San Francisco, and other points in the country, and tends to prohibit the use of many films which school men would be glad to obtain. For example, Superintendent Miller of Galesburg, Illinois, reports that a distributor has allowed him to give shows to pay for the projection equipment but has refused to let him show any more films with that equipment when paid for unless the films are shown in the classroom and in such a form that no story runs through them.

¹Bagley, W. C. "Research in visual education," *Visual Education*, 3:324, September, 1922.

Visual Education Association of Illinois. Recently there has been organized the Visual Education Association of Illinois. The members of this organization are teachers and instructors interested in the problem of visual education. This organization will devote its time and energy to the solution of problems in the field of visual education, and should serve as a clearing house for information concerning this new movement and facilitate the distribution of visual aids throughout the state.

Need for further research. As we have already indicated there is need for further scientific research. It is to be hoped that in the near future we will be able to establish with a large degree of certainty the educational value of the stereograph, the slide, the moving picture, and other forms of visual instruction. There are indications that funds for such a program of research will be forthcoming.

CIRCULARS OF THE BUREAU OF EDUCATIONAL RE-
SEARCH, COLLEGE OF EDUCATION, UNIVERSITY
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- No. 12. Monroe, Walter S. Announcements of the Bureau of Educational Research for 1922-23.
- No. 13. Monroe, Walter S. Definitions of the Terminology of Educational Measurements.
- No. 14. Streitz, Ruth. Gifted Children and Provisions for Them in Our Schools.
- No. 15. Monroe, Walter S. Educational Tests for Use in Elementary Schools.
- No. 16. Odell, Charles W. The Effect of Attendance Upon School Achievement.
- No. 17. Mohlman, Dora Keen. The Elementary School Principalship.
- No. 18. Monroe, Walter S. Educational Tests for Use in High Schools.
- No. 19. Streitz, Ruth. Provisions for Exceptional Children in 191 Illinois Cities.
- No. 20. McClusky, Frederick Dean. Place of Moving Pictures in Visual Education.

A limited number of copies of these educational circulars are available for free distribution to superintendents and teachers in Illinois. We shall be glad to add to our mailing list for these circulars the names of any teachers or superintendents who care to receive them regularly. We shall be glad also to send additional copies of any circular to superintendents or principals for distribution among their teachers. Address all communications to the Bureau of Educational Research, University of Illinois.